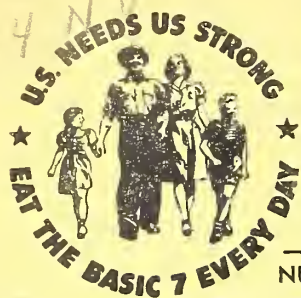


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NUTRITION

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SUMMARY OF THE PROCEEDINGS OF THE INTERAGENCY NUTRITION INSTITUTE HELD MARCH 30, 31, AND APRIL 1 IN WASHINGTON, D. C.

In our May issue we could do no more than list the program of the Interagency Nutrition Institute. In this double issue we are including as much as we can of all the new and worth-while things that were reported and discussed during the Institute.

A Coordinated Approach to Nutrition Programs. M. L. Wilson, Chief of Nutrition Programs, opened the Institute by saying that it was planned to cover the whole field of nutrition. The idea is growing, he went on, that the end purpose of agricultural production is human welfare. Concern for nutrition needs to be injected into the thinking and planning for agriculture, education, and health and welfare.

People working on agricultural policies, on food production and processing, on education, and on health and welfare programs need to keep informed of scientific findings and realize the significance and importance of the right kind of food and diet. A "nutrition advocate" should sit in on all planning conferences that have to do with food to call the attention of the planners to the effect on nutrition of the suggestions proposed.

"I hope that State nutrition committees will follow the pattern of this Institute," Mr. Wilson said. "From the resources available in the States, nutrition committees can develop similar programs to bring their people up-to-date in research developments and to bring them together to discuss concrete problems existing in the State that relate to nutrition.

"We are encouraged by the way State nutrition committees continue to cooperate and to work together in this job of nutrition education. About 40 of the 48 State nutrition committees are continuing the cohesion and teamwork developed during the war and are holding regular meetings."

Nutrition and Health Improvement. Dr. W. H. Sebrell of the National Institutes of Health stressed the importance of making nutrition surveys the basis for nutrition programs. These surveys consist of three parts: (1) Dietary surveys; (2) clinical surveys to measure the physical condition and development resulting from the food eaten; and (3) laboratory observations. With this information the nature and extent of the problem and the best possible way to attack it will be known.

A good nutrition program must be a cooperative one. Because it should be aimed at correcting the specific kinds of malnutrition that exist in a particular community, physicians and public health officers have a real part in outlining the problems and determining the deficiencies needing correction. But while they can diagnose and point out the diseases resulting from poor diets, they are nearly helpless to correct the conditions except through therapeutic measures, which alone are inadequate in a public health program. We must have community action for successful educational programs. Cooperation among various agencies working in nutrition fields has developed rapidly in this country. The value of a cooperative approach has been demonstrated over and over again by the effective work of nutrition committees.

As an example of a broad approach covering medical as well as nutrition aspects, Dr. Sebrell described a survey carried out in Canada in 1947 among two bands of Indians living on James Bay. (This study was reported in the Canadian Med. Assn. Jour., Vol. 59, pp. 505-518, 1948, under the title "The Nutrition and Health of the James Bay Indian," by R. P. Vivian, C. McMillan, et al.)

Dr. Sebrell summed up his report by saying that, although this survey covered different population and environment than that found in the United States,

yet there are lessons to be learned from surveys of this kind which can be applied to our problems here.

Nutrition and Related Frontiers. Dr. C. Glen King, Scientific Director of the Nutrition Foundation, outlined some of the significant findings from recent nutrition research, such as the effect of trace elements and the relationship of various vitamins and minerals to such diseases as cancer, pellagra, hypertension and arteriosclerosis, and tooth decay.

Defining nutrition as "the science of food and its relation to life and health," Dr. King went on to say that "Nutrition begins in agriculture and follows through the channels of distribution to consumption, and into the most complicated phases of medical science."

In educating the public in good eating habits, he said emphasis should be placed on four groups of foods—green and leafy vegetables, milk, citrus fruits and tomatoes, and animal protein foods. He stressed the fact that the diet of the mother during gestation and lactation can make the difference between high and negligible incidence of tooth decay in the offspring as well as in their health generally.

Perhaps the greatest single fault in American dietary habits is overeating, he said. Excess caloric intake is conducive to diabetes, hypertension, and cancer, as well as shortened life span.

He summed up his talk by saying, "We have a great moral obligation to support continuing research to get factual, fundamental information and advance the science of nutrition. We also have an obligation to present nutrition information to the people."

HIGH LIGHTS OF CURRENT RESEARCH AND FIELD STUDIES

In opening the afternoon session, Dr. H. R. Sandstead of the PHS said that investigations of nutritional status are essential in determining the relationship between food practices and public health.

Research in nutrition in the PHS is carried on in the National Institutes of Health and in field studies of the Nutrition Branch in the Division of Chronic Diseases. The latter programs are conducted on a cooperative basis with State departments of health and with welfare and educational groups.

Field Studies. Dr. F. W. Morse of the PHS described how the Nutrition Units demonstrate nutrition to people.

A Nutrition Unit consists of a physician, nutritionist, biochemist, public health nurse, clerk, and laboratory technician.

The techniques used in physical examinations are outlined by H. R. Sandstead and R. K. Anderson in "Nutrition Studies. 1. Description of Physical Signs Possibly Related to Nutritional Status." (Published in Public Health Reports, Vol. 62, No. 36, July 25, 1947, pp. 1073-1085, (Reprint 2799).) M. G. Eads and A. P. Meredith described dietary appraisal methods in "Nutrition Studies. 2. Methods of Collecting Dietary Data." (Published in the same journal, Vol. 63, No. 24, June 11, 1948, pp. 777-782, (Reprint 2866).)

There are four Nutrition Units, located in the New England, north central, mid-Atlantic, and southeastern areas. A brief account of the studies being made by these units is given in the February NNL.

Experience in these surveys, Dr. Morse said, indicated that (1) thorough community preparation before the survey begins is essential. It makes for better relationships and understanding if the first tests are given the sponsoring group. (2) It is better to carry out a concentrated survey for a short time. (3) The same items should be used for all studies.

The most important part of this work is to help the community develop an educational program, he said. Nutrition examinations dramatize nutrition problems and arouse interest in the community, as well as give a vast amount of information.

Research. Dr. E. L. Batchelder of BHNHE said that nutrition research in BHNHE is trying to answer the following questions: (1) What and how much of specific nutrients or foods do people need—people differing in age, sex, activity, and many environmental and possibly genetic factors? (2) What contributions do the various foods available to the American citizens make in meeting these needs? (3) What methods of preparing foods for the table—or preserving them for times of scarcity—will best promote high nutritional value in the diet?

Taking the last question first, she stressed the importance of palatability and acceptability and said "No matter how full of nutrients, a food is ineffective if it is too unpalatable to be eaten."

To answer the second question, she said that many things that seemed to be well established still need to be studied in the light of new developments. The Bureau is doing research on caloric values, methods of determining ascorbic acid, protein, vitamins, and carotene. The places of wheat and eggs in the diet are also being investigated.

One of the answers to the first question is being worked out in experiments to determine the vitamin C requirements of adolescents.

Children's energy expenditure in characteristic activities is measured in a respiration chamber, with a Douglas bag, and with other types of special equipment.

The results of eating no breakfast and of several kinds of breakfast on blood sugar and thiamine indicate that blood sugar levels remain above fasting levels longer with breakfast supplying 22 to 25 grams of protein.

Under the Research and Marketing Act cooperative studies are under way to determine nutritional status of population groups and what changes should be recommended for people with deficient diets.

An example of Cooperative Nutrition Work, Cumberland Pilot Study. The PHS and BHNHE are cooperating in this study and reports were given by those who worked on various phases of the study.

Dr. Esther Batchelder of BHNHE said that the idea of the Cumberland study originated in a conference sponsored by the Interagency School Lunch Coordinating Committee in 1945. Member agencies wanted to set up a plan for research that would supply information needed by school lunch workers and answer questions arising in school lunch administration. A study to measure the nutritional effects of school lunches was proposed. Before asking Congress for the money necessary for such a study, members of the committee decided to pool their resources and set up a pilot study to see whether the plan would work and whether a large expenditure would be justified. Thus the Cumberland study evolved.

Dr. Olaf Mickelsen of PHS described the tests the PHS had made on children in two schools. One school served lunches, the other did not, but the two were otherwise similar. All children in both schools were in good condition to start with and there was no essential difference between the two groups. The

children were given a physical examination for signs of nutritional deficiencies and blood tests were made for vitamin A, carotene, and hemoglobin. None showed outstanding deficiency signs.

He explained that it is difficult to show a difference over a short period of time between the children in the two schools due to school lunches because both sets of children had fairly good diets at home and the school lunch contributed only a small part of the meals consumed by a child during the year. When the diets are analyzed for specific nutrients there may be significant differences between the two groups of children.

Dr. Millicent Hathaway of BHNHE reported that the ascorbic acid values for blood serum varied more than did other blood constituents. For children not eating school lunches, about 30 percent had less than 0.4 milligram ascorbic acid in 100 milliliters blood, and 60 percent were below 0.6 milligram. Of the school lunch group 4 percent had values below 0.4 milligrams, 23 percent below 0.6. This was probably because of the generous use of citrus fruit supplied by PMA to the school serving lunches.

In analyzing the school meals, she found that in general they were satisfactory in protein, calcium, riboflavin, and probably in energy values. Ascorbic acid was satisfactory if citrus fruits were included. Thiamine in general was low. The importance of milk in supplying riboflavin, calcium, and protein was brought out definitely, she said.

Sadye Adelson of BHNHE said that the BHNHE made intensive 7-day dietary studies of a selected sample of both children and their families to find out how the diets of children who did not get school lunches compared with those who did. The diets of about 30 percent of the children in both groups met the National Research Council's Recommended Allowances for calories and eight nutrients. Practically all of the remaining 70 percent of the children having school lunches had at least two-thirds of the Allowances whereas only 60 percent of the children in the control school had this much. They found that the children in the control school tended to be short in vitamin A, vitamin C, and calcium. In the lunch school calcium and ascorbic acid were also the most limiting factors but to a lesser degree. All children getting lunches met the NRC Allowances

for vitamin A. Milk, tomatoes and citrus fruit, and green and yellow vegetables were contributed more liberally by school lunches than by home diets.

NUTRITION EDUCATION

Report of Recent Studies Dealing With Nutrition Education in the Schools.

Edna P. Amidon of the Office of Education pointed out that in nutrition research we try to find the relation between the food intake of a person and his physical condition; in education there is a similar need for finding the relationship between teaching practice and the resulting change in the individual.

She reported a study dealing with education of teachers who teach nutrition to find out what procedures will make a difference in their teaching. This study is reported in "Development of Instruments for Evaluating Food Practices, Nutrition Education, and Their Use in Nutrition Education at the Elementary Level," by Dr. Willa V. Tinsley, available through the University of Minnesota Library.

Three groups of teachers took part in this study—one group had participated in a nutrition education workshop and received some help through circular letters. A second did not have the workshop experience but received the same circular letters as the first group. A third group received a large amount of in-service teacher training.

Comparison of the children's diets in the fall and in the spring at the end of a year's teaching by the three groups revealed that a significantly higher proportion of the pupils of teachers in the first and third groups were eating good diets in the spring. Pupils of teachers in the second group did not make as much improvement.

In discussing supervisory and workshop procedures, Miss Amidon called attention to Dr. Earl C. Kelly's article entitled "Why All This Talk About Workshops" in the February 1945 issue of Educational Leadership, the Journal of the Department of Supervision and Curriculum Development, NEA; and to "Workshop Technique in Elementary Education," issued in February 1948 by the Division of Elementary Education, Office of Education, Federal Security Agency.

In evaluating nutrition teaching we can analyze workshop and supervision practices in the light of known principles

of learning. However, we need careful studies to determine the changes in the individual resulting from different teaching and supervisory procedures. We need more studies dealing directly with such questions as "What kind of education needs to accompany school lunches to get optimum results?" "How do the changes we attempt to bring about in nutrition affect other areas of the child's living at school and at home?"

We have barely scratched the surface in this country when it comes to research in nutrition education.

Rural Education Methods in Nutrition.

Eleanore Davis of the Extension Service described a project carried on in Indiana as an example of how Extension workers teach rural people. The project, Good Meals at Low Cost, was part of a long-time program of nutrition education.

The State nutritionist, who has responsibility for guiding the county home demonstration agents in planning nutrition work with their local groups, held training schools for agents. Before the meeting she asked herself, "What do I want the women to do as a result of this meeting?" and wrote down the answers. Thus she had her objectives clearly in mind. She suggested that agents do likewise.

To help the agents discover and recognize their problems, she had them score their own diets and discuss ways of correcting the faults they had. She raised other questions dealing with the specific nutrition principles she wanted to teach, and during the discussion supplied background information and material for agents to use.

Since people are more apt to act upon information which is repeated in a variety of forms, she suggested 5, 6, or 7 different ways of presenting the ideas to people. She brought in specialists from other fields, such as dairy or horticulture men. She reminded agents and leaders alike to try out ideas themselves before passing them on.

As to results, 16 agents held training schools in their counties for volunteer local leaders who in turn taught local groups. Their reports show that 3,496 women who took part in the project said they were forming the habit of planning meals ahead. Over 4,000 women said they had learned to substitute low-cost foods for high-priced ones of equal nutritive

value. Many women said they had learned food-buying practices, that they were conserving nutritive values in cooking, and were growing gardens.

Gertrude Drinker of the Farmers Home Administration said that the FHA reaches a group which is unorganized. Many of these people cannot go to meetings because they have inadequate transportation, clothing, and homes. Hence the teaching is on an individual basis.

We try to talk in terms the particular family can understand, she said, and we keep in mind the person's background and education. For this reason we seldom use the word "nutrition." Instead, we point out how they can save carrying water and fuel by using small amounts of water for cooking and short cooking periods.

We have helped families plan which vegetables to plant, how to grow them, and how to cook the products. We have encouraged seed stores to sell packages containing 10 to 15 different kinds of vegetable seeds, many of which are new to the families. We have shown farmers that it pays them to hire help during the canning season so that the women can can the vegetables and fruits they raise.

Milk consumption has been increased by lending the families money to buy cows and refrigerators to keep the milk cool.

Most people want more food; we try to teach them to want better food. If we plan the easy way for them to get it, easy in terms of hauling less fuel, lifting less water, using less time, and having better equipment, they will have it. We can point to record after record of families who had little or no garden before coming to FHA for help and who have increased their canning from almost nothing to 100 quarts of a variety of tomatoes, corn, green and yellow vegetables, and fruits.

A Nutrition Study with Urban Families.

Dr. Pauline Beery Mack, Director of the Ellen H. Richards Institute, the Pennsylvania State College, described the nutrition surveys carried out by the Institute and the results obtained from their various education programs. These studies have continued since 1935, with the cooperation of the State Department of Health since 1936, and have included approximately 12,000 persons.

The surveys consist of a 2-week record of food eaten and extensive observations and tests to determine physical status of the individuals in the families. The methods used in making these surveys are described in "They Never Suspected,"

issued in 1948 (48 pp., illus.) by the Westinghouse Electric Corporation. Copies may be obtained by writing Dr. Mack at State College, Pa.

After the food consumption records are analyzed and correlated with the physical findings, the results are discussed with the families concerned and recommendations for improving the diets are given. Retesting after a period of time shows how effective the teaching has been.

Dr. Mack summed up her experience in nutrition education by saying that personal interviews giving suggestions for correcting dietary faults uncovered by the individual's actual medical and laboratory findings are effective in nutrition education unless the educational and economic limitations are too severe. A combination of individual and group approaches has been shown in several studies to be more effective than the individual approach alone. She suggested that, in talking with a mother, her child's case should be presented as being similar to others; he should not be spoken of as an extreme case.

She ended by saying "We in the health field would like to see simple tests for nutritional status given everyone. This screening would bring to light the cases that need more elaborate tests and would give the best type of motivation to the families for improved dietaries."

SOILS, FOODS, AND NUTRITION

Relation of Soils to Nutrition. Dr. K. C. Beeson of the U. S. Plant, Soil, and Nutrition Laboratory, Ithaca, N. Y., said that the Laboratory's first approach to a study of the influence of soil on nutrition was to locate and map all known nutritional diseases in both plants and animals. They found that nutritional troubles tend to be concentrated along the Coastal Plain areas, the highly leached and acid soils of the North, and the alkaline soils of the arid West. Each of these areas presents a special problem, and the solution in any one area is not necessarily applicable to any of the others.

In the study of native vegetation in the North Carolina Coastal Plain, they found that the quantities of iron, copper, and manganese in the vegetation varied significantly with the ancient Coastal Plain terraces on which it was growing. Cobalt and phosphorus bear no relation to these terraces but are low over all the area. Wide fluctuations in cobalt, in particular, occur on some of the younger terraces.

Under certain conditions deficiencies of minor elements may be corrected by applying the elements to the soil. The quantities that will be absorbed by the soil will depend to some extent on other soil conditions, particularly the relative level of elements influencing plant growth. Species of plants differ in their ability to absorb many of these elements from the soil. Thus, management programs that substitute clover and better grasses for red top and poverty grass will also supply more cobalt, copper, and phosphorus to the animal.

Soil properties have only minor effects on the vitamin content of plants; variety, however, does affect vitamin content. If through breeding programs the ascorbic acid, carotene, or thiamine content of important fruits and vegetables can be doubled, a real contribution to human nutrition can be made.

Although interesting distribution patterns for troubles such as goiter and dental caries are recognized, many suggested relationships of this kind are based on inferences with no proof of their truth being presented. Much more research is needed before generalizations of practical value can be established.

Fruits and Vegetables from Farm to Consumer. D. F. Fisher, Bureau of Plant Industry, Soils, and Agricultural Engineering, described how the conditions that prevail after harvesting affect the quality of the fruits and vegetables. He pointed out that shipped-in produce may be better than locally grown because generally it is produced in a highly specialized area that is particularly adapted to that particular crop. Generally, too, shipped-in produce is more strictly graded and, most important, it generally gets prompt and adequate refrigeration from field to market and right on to the corner grocery store. Varietal differences, degree of maturity when harvested, temperature all the way along, packaging, and special treatments affect quality and nutritive value.

The importance of temperature in maintaining quality in fresh produce cannot be overstated. Not only is a low temperature extremely important in controlling diseases caused by fungi or molds, but it is vital in slowing down respiration and other metabolic activities associated with ripening and final deterioration in quality.

Different products require different temperatures. In general, products native to temperate climates, such as all

leafy vegetables, onions, carrots, beets, turnips, grapes, apples, and pears keep best at the lowest temperatures that can be maintained above their freezing point. On the other hand, products of tropical or semitropical origin—tomatoes, eggplants, cucumbers, potatoes, sweet-potatoes, bananas, etc.—keep best at moderately cool temperatures. The limitations of both trucks and railroad cars used in transporting fruits and vegetables make it difficult to maintain ideal temperatures whether refrigeration, ventilation, or heater service is needed.

Those who are trying to make precise measurements of food value may find that the reasons for variable results are the ways a fruit or vegetable was handled after harvesting, he concluded.

Conserving Food Values. Dr. B. Watt of BHNHE said that, since vitamin C is relatively unstable to heat, oxidation, and alkaline conditions, and is readily soluble in water, the retention of this vitamin during marketing and preparation practices is a useful criterion for measuring preservation of all nutrients.

When packed in crushed ice, asparagus, broccoli, lettuce, and most of the dark green leafy vegetables lost less than one-fifth of their original value of vitamin C in 5 days. Snap beans, shelled lima beans, peppers, cabbage, and tomatoes retained about 90 percent or more when refrigerated for 7 days. Potatoes lost about half in 3 months' storage in a cool cellar and after 6 or 7 months had only about one-third of the value they had when harvested.

In canning, the nonacid foods, such as beans, peas, spinach, and corn, retained only about half of their ascorbic acid and thiamine. Oranges, on the other hand, did not lose much more than 1 percent while tomatoes lost a little more. Cans stored at 50° F. retain higher percentages of ascorbic acid, carotene, thiamine, and niacin than when stored at 65° or 80°.

Frozen foods lose nutrient value during blanching and subsequent storage. However, concentrated orange juice loses practically no vitamin C during freezing or proper storage.

Outside dark green leafy parts of fresh vegetables should be used because they have at least 2 to 6 times more iron than the inner bleached leaves and many times more calcium and vitamins.

Cutting exposes new surfaces to air and allows greater oxidation. In cooking cut pieces there is more loss from leaching

but this may be offset by the shorter period of cooking and the smaller volume of water required. The most important recommendations for the homemaker are to cook quickly and only until done in as small an amount of water as is feasible.

To conserve the nutrients in meat don't overcook and use a moderate temperature rather than a high one for roasting.

Milk should be protected from light and heat.

Overbaking, toasting, and reheating diminish the thiamine content of cereal products, and rice may lose a large part of its B vitamin when washed.

NUTRITION AND FOOD SUPPLY

Trends in Consumption and Implications of Nutrition Research for Agriculture.

Dr. H. K. Stiebeling, Chief of BHNHE, concluded her talk by saying we know what kind of meals can give diets in accord with current nutritional knowledge at costs within the food budget of most families in this country. BHNHE has developed food plans and market lists that provide the nutrients specified by the NRC Recommended Dietary Allowances.

Undoubtedly the productive capacity of agriculture is such that the needed food would be produced, if prices to the farmers were right, and if consumer demand supported the market.

But while increased purchasing power of consumers, and education, tend to work in the direction of better diets, the pace is slower than the importance of the matter warrants. In every community there are still those with some degree of malnutrition. Education conducted so as to give prestige value to nutritionally needed foods should work hand in hand with administrative programs that would make the nutritionally needed foods available at compelling prices.

If "nutritional science" and "agricultural programs or policy" sometimes seem to operate as if they have nothing in common, that is because of us—because of our habits of study and action—because of barriers that are created by pigeonholing knowledge and activities too rigidly. It is not a separation that exists outside our heads.

Modern studies in nutrition deal with concrete situations—what people require from their food; how the body utilizes its food; what contributions various foods make to these needs; what changes in popular dietary habits would enable people to reap the benefit of

advances in nutritional knowledge. Dr. Sherman's studies demonstrate for laboratory animals the possibility through nutrition of increased rate of growth in the young, increased physical vigor in adulthood, and prolonging the vigorous years of life.

Nutritional science accumulates useful knowledge about these situations and events. Agricultural policy and programs put knowledge to work—to help improve situations and make planned events come true. What in the long run is good for people must in the long run be good for agriculture because people are the customers for agricultural products.

Production Planning. O. V. Wells, Chief of the Bureau of Agricultural Economics, said that in production planning you first determine a diet which is desirable nutritionally and in accord with American food habits and different budget levels; then you translate this diet into terms of total production, and finally into acreage goals. In setting goals there is always a conflict between what is necessary to meet nutrition requirements and what can be sold at a price.

In the meantime, we are faced with surpluses of some foods. Various ways have been suggested to promote consumption of these surpluses; full employment, a shift to a diet of animal products, a program to encourage buying surplus items, and the food stamp plan. Each of these plans lacks something to make it entirely satisfactory.

A food allotment plan has been suggested as a way to provide low-income families with an adequate diet. Under this plan, whenever a family's income is so low that 40 percent of it is not enough to purchase an adequate diet, the family may buy food certificates. With them the family can procure all it needs for a minimum adequate diet as worked out by nutritionists. The Government would pay the difference between the amount the family pays and the retail cost. This plan would increase the amount of food consumed.

Another way of supplying or assisting people toward adequate diets and protecting farm income is to announce to farmers early in the season the price the Government will pay for certain foods to encourage production. The products would move to market for whatever prices people would pay. If the actual price falls below the announced price, the difference would be made up by a payment from the Government to the farmer.

Education and the accumulation and interpretation of scientific data, although slower methods, are not only basic to any other approach but also offer one of the better chances for success in achieving good nutrition, especially over the long run.

USING THE FOOD PRODUCED

Food Distribution Programs. H. C.

Albin of PMA described the programs carried on by the Food Distribution Programs Branch to help maintain a high level of diets in this country. These programs have been described from time to time in this periodical—the Plentiful Foods Program in the March 1949 issue, Food Preservation in March 1949 and August 1948, School Lunch in December 1948, and Direct Distribution in August 1948.

In addition to these, studies under the Research and Marketing Act funds are being carried on by food producers and processors to find out how distribution can be made more efficient and how foods can be made more attractive to purchasers.

With high production and decreasing demand, nutritionists share in the responsibility of teaching people to place a greater value on food, he said. They, as well as others, must adopt more aggressive methods to raise the nutritional levels of the population, if we are to compete successfully with the producers of luxury goods who use high pressure advertising techniques.

In addition to raising consumption we should consider ways of adjusting consumption to available food supplies and, conversely, ways of adjusting production to nutrition requirements. Nutritionists should continue their excellent work in educating low-income families in the best ways of utilizing their food dollars for good nutrition.

In all its work the Food Distribution Programs Branch is striving toward the same goal as nutritionists are, and every step of the way we rely on the help and advice of nutrition experts.

Maintaining Levels of Consumption.

Fred Waugh, Economist in the Council of Economic Advisers, said that there are two points of view on the kind of food consumption program we should have:

(1) The best possible nutrition program with no consideration of agricultural aspects; and (2) a consumption program that will contribute to agricultural

prosperity. He advocated combining both points of view. If only nutrition were considered, it could undermine farm prosperity because an adequate diet can be provided at very low cost. Farm prosperity is essential for national economic welfare.

The improvements in the distribution and per capita consumption of food and in farm income that have been made are due partly to research and education but mainly to the war. With the passing of the war stimulus, there has been some let-down in economic activity, a decrease in prices and production, and an increase in unemployment. The let-down has been enough to make us take stock of where we stand in agriculture and the general economy and decide what should be done.

In case a depression occurs, we should step up the educational and research programs in nutrition. We would step up the general relief program and social security payments. Something would have to be done also about farm income and farm prices. In order to keep prices up we can either reduce the supply of food to fit the low demand by taking foods off the market and using them for non-food purposes or we can raise the demand for food used for human consumption.

In any food distribution program to increase consumption, we must make sure that food distributed free does not replace food that would otherwise be bought from the store.

Agriculture is one of the most unstable elements in our economy, and to introduce some stability into farm income is in the interest of everyone in the country. With a stable prosperity we would expect agricultural prices to run around support prices or better and with a good national and agricultural income we would not need much of a food program.

Mr. Waugh concluded by saying that we will have to find some way to use fully the resources which the American public wants and needs.

Sincerely yours,

M L Wilson
M. L. Wilson, Chief,
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W H Sebrell
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